

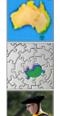
Australian Bureau of Statistics

1383.0.55.001 - Measures of Australia's Progress: Summary Indicators, 2008 (Edition 2)

Previous ISSUE Released at 11:30 AM (CANBERRA TIME) 30/09/2008

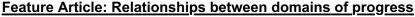
Summary

Contents



<u>Progress in Australia: The Headline Dimensions</u>

Includes: Summary picture of progress



Includes: Discussion of the key links between society, the economy and the environment



Includes: Health; Education and training; Work

The Economy and Economic Resources

Includes: National income; Economic hardship; National wealth; Housing; Productivity

The Environment

Includes: The natural landscape; The air and atmosphere; Oceans and estuaries

Living Together

Includes: Family, community and social cohesion; Crime; Democracy, governance and citizenship

State and territory spreadsheets

Includes: State and territory data for selected headline indicators

In this issue

ABOUT THIS PRODUCT

Measures of Australia's Progress (MAP): Summary Indicators, is part of the suite of Measures of Australia's Progress products produced by the ABS. This suite includes Measures of Australia's Progress (cat. no. 1370.0), which presents a detailed set of indicators, currently released every five years, and Measures of Australia's Progress: At a Glance (cat. no. 1383.0.55.002), a small summary booklet released annually. The MAP products are designed to inform Australians of changes in their lives and the human and natural environment.

Measures of Australia's Progress: Summary Indicators provides a summary of measures which relate to the 14 headline dimensions of progress presented in MAP. It presents the headline indicators (where a headline indicator is available) at the national level, and a brief discussion about the measure and associated trends

STATE/TERRITORY LEVEL DATA

State and territory spreadsheets for the headline indicators are now available from the ABS website (where data are available). While these data provide a suite of statistics across the dimensions of progress for each state/territory, they will not necessarily function as progress indicators at this level. Rather, the data are primarily presented to help users understand the relative contribution of each state/territory to the national headline indicator.

UPDATES TO THIS PRODUCT

As MAP draws on data from a number of different sources, released at different times of the year, it is inevitable that more recent data will become available for the headline indicators at some stage following release of the Summary Indicators product.

While the timing of release of **MAP: Summary Indicators**, **2008 (Edition 1)** was chosen to allow most of the indicators to be as up to date as possible, one data source was expected to have new data available in the months following the release: the **National Greenhouse Gas Inventory 2006**, produced by the Australian Government Department of Climate Change.

To ensure that the **MAP: Summary Indicators** publication remains up-to-date, data and text for the following sections has now been updated:

- Biodiversity the land clearing section
- Atmosphere greenhouse gas emissions.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or David Haynes on Canberra (02) 6252 7774.

Progress in Australia: The Headline Dimensions



PROGRESS IN AUSTRALIA

THE HEADLINE DIMENSIONS

The following summaries on the 14 headline dimensions of progress are grouped into four broad areas:

- Individuals
- The economy and economic resources
- The environment
- Living together

The table below shows the grouping of the dimensions under each of these areas, and provides points of interest from the following summaries for each dimension.

Individuals	The economy and economic resources	The environment	Living together
Health: 1996 to 2006, Life expectancy increases for men and women.	National income: 1996-97 to 2006-07, Australia experiences significant real income growth.	The natural landscape: 2000 to 2007, The number of threatened birds and mammals assessed as extinct, endangered or	Family, community and social cohesion: 2000 to 2006, More Australians are participating in voluntary
Education and	Economic hardship:	vulnerable rises.	work.

training:

1997 to 2007, More Australians obtain a nonschool qualification.

Work:

1997 to 2007, The unemployment rate decreases.

1994-95 to 2005-06, The real income of low income Australians increases.

National wealth:

1997 to 2007, Australia's real net worth per person rises.

Housing:

2005-06, Most Australians are not experiencing overcrowding.

Productivity:

1996-97 to 2006-07, Australia experiences productivity improvement.

1995 to 2005, The rate of land clearing increased.

The air and atmosphere:

1997 to 2006, Air quality is generally good, even though bushfires have obscured this trend.

1990 to 2006, Net greenhouse gas emissions have risen.

Oceans and estuaries:

1996 to 2006, The number of fish species classified as overfished increases for Commonwealth fisheries.

Crime:

1998 to 2005, Rates of personal crime increase slightly, and household crime rates decrease.

Democracy, governance and citizenship:

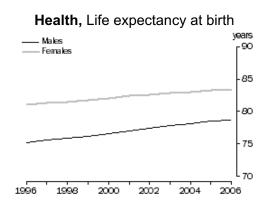
2004 to 2007, The vast majority of eligible Australians are enrolled to vote.

The Headline Dimensions: Individuals



When measuring progress for individuals, we consider three headline dimensions: health; education and training; and work. All three indicators for individuals suggest progress during the last decade.

HEALTH



For technical information see Endnote 1. Source: <u>Deaths, Australia, 2006</u> (cat. no. 3302.0).

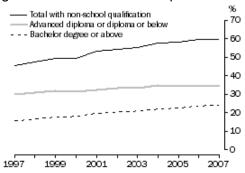
Life expectancy at birth is a measure of how long someone born in a particular year might expect to live if mortality patterns for that year remained unchanged over their lifetime. It is one of the most widely used indicators of population health. It focuses on length of life rather than its quality, but provides a useful summary of the health of the population.

Australian life expectancy improved during the decade 1996 to 2006. A boy born in 2006 could expect to live to be 79, while a girl could expect to reach 83 - increases of three years and two years respectively. Women tend to live longer than men, and this is reflected in the differences in life expectancy throughout the 20th century. Although a girl born in 2006 could still expect to live longer than a boy, in recent years life expectancy at birth has increased more quickly for males than for females.

While Australians are living longer than ever before, there is a good deal of debate about whether life expectancy will continue to increase. However, there is no doubt that there is more room for improvement among some groups of the population compared to others. In particular, life expectancy for Indigenous Australians, both male and female, is estimated to be about 17 years shorter than that of all Australians (see Endnote 2).

EDUCATION AND TRAINING

Education and training, Highest level of non-school qualification of people aged 25-64 years



For technical information see Endnote 3. Source: ABS data available on request, Survey of Education and Work.

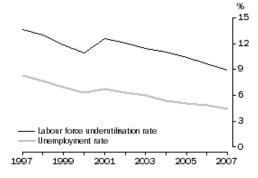
Education and training help people to develop knowledge and skills that may be used to enhance their own living standards and those of the broader community. For an individual, educational attainment is widely seen as a key factor in obtaining a rewarding career. For the nation, having a skilled workforce is vital to support ongoing economic development and improvements in living conditions.

The indicator shown is the proportion of the population aged 25-64 years with a non-school qualification (e.g. university or college education, see Endnote 3), and this has risen over the last decade. Between 1997 and 2007, the proportion of 25-64 year olds with a non-school qualification rose from 46% to 59%, continuing a trend seen for many decades.

The increase in the proportion of people with non-school qualifications is mainly being driven by the substantial increase in the proportion of people with a higher education qualification (e.g. a Bachelor degree or above). Between 1997 and 2007, the proportion of people aged 25-64 years with a Bachelor degree or higher level qualification increased from 16% to 24%. Over the same period, the proportion of people whose highest qualification was a vocational qualification (e.g. an Advanced diploma or diploma or below) increased from 30% to 34%.

WORK

Work, unemployment and labour force underutilisation rates



For technical information see Endnote 4. Source: Australian Labour Market Statistics (cat. no. 6105.0); Labour Force, Australia, Spreadsheets (cat. no. 6202.0.55.001).

Paid work is the way most people obtain the economic resources needed for day to day living, for

themselves and their dependants, and to meet their longer term financial needs. Having paid work contributes to a person's sense of identity and self-esteem. People's involvement in paid work also contributes to economic growth and development.

The unemployment rate has been chosen as the headline indicator, because of its relevance to the economic and social aspects of work. This rate is the number of unemployed people expressed as a percentage of the labour force, and is a widely used measure of underutilised labour resources in the economy. The graph also includes the labour force underutilisation rate. This is the number of unemployed and underemployed people, expressed as a proportion of the labour force (see Endnote 4). The labour force underutilisation rate gives a broader view of labour underutilisation than the unemployment rate.

Measures of underutilised labour such as the unemployment rate are sensitive to changes in the economy. In 1997, the annual average unemployment rate was 8.3%. Since then it has generally fallen and the annual unemployment rate was 4.4% in 2007. The labour force underutilisation rate fell from 13.6% in 1997 to 8.9% in 2007.

ENDNOTES

- 1. Data are three-year averages, with the year shown being the last year of the three-year period.
- 2. See: Steering Committee for the Review of Government Service Provision 2007, <u>Overcoming Indigenous Disadvantage: Key Indicators 2007</u>, Productivity Commission, Canberra, viewed 11 December 2007.
- 3. Data relate to the person's highest non-school qualification only, and some people may have more than one qualification. Components do not sum to the total as the total with non-school qualifications includes those where the level could not be determined.

Qualifications are defined as formal certifications, issued by a relevant approved body, in recognition that a person has achieved learning outcomes or competencies relevant to identified individual, professional, industry or community needs. Statements of attainment awarded for partial completion of a course of study at a particular level are excluded.

Non-school qualifications are awarded for educational attainments other than those of pre-primary, primary or secondary education. They include higher education qualifications (e.g. Postgraduate degree, Graduate diploma) and vocational education qualifications (e.g. Certificates I, II, III and IV). Collectively, this group of qualifications is referred to as non-school qualifications instead of post-school qualifications because students can study for vocational qualifications while attending high school.

The level of education classification contains several levels of non-school qualifications. For the purposes of this indicator these have been combined into two groups:

- Bachelor degree or above Postgraduate degree, Master degree, Graduate diploma, Graduate certificate, and Bachelor degree.
- Advanced diploma or diploma or below Advanced diploma, Diploma, Advanced certificate, and Certificates I to IV.
- 4. The unemployment rate is the number of unemployed people expressed as a percentage of the labour force (employed plus unemployed people). The annual rates shown are the average of each month's unemployment rates, over the 12 months of the calendar year. Original data (rather than trend or seasonally adjusted data) have been used. Unemployment rates for each month can be obtained from <u>Labour Force</u>, <u>Australia</u>, <u>Spreadsheets</u> (cat. no. 6202.0.55.001).

The labour force underutilisation rate is the number of people who are either unemployed or underemployed (defined below), expressed as a proportion of the labour force. It relates to September each year. Labour force underutilisation rates for September of each year can be obtained from <u>Labour Market Statistics</u>, <u>Australia</u> (cat. no. 6105.0).

People who are unemployed or underemployed are defined as follows:

- Unemployed people aged 15 years and over who were not employed, and:
 - had actively looked for work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or
 - were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.
- Underemployed people working part-time (i.e. people who usually work less than 35 hours a week in all jobs) who wanted to work additional hours and were available to work more hours, either in the reference week or in the four weeks subsequent to the survey; and full-time workers who worked less than 35 hours in the reference week, for economic reasons.

REFERENCES

Health

Australian Bureau of Statistics 2007, Deaths, Australia, 2006, cat. no. 3302.0, ABS, Canberra.

Steering Committee for the Review of Government Service Provision 2007, <u>Overcoming Indigenous Disadvantage: Key Indicators 2007</u>, Productivity Commission, Canberra.

Education and training

Australian Bureau of Statistics 2007, Education and Work, Australia, May 2007, cat. no. 6227.0, ABS, Canberra.

Work

Australian Bureau of Statistics 2008, <u>Labour Force</u>, <u>Australia</u>, <u>Spreadsheets</u>, cat. no. 6202.0.55.001, ABS, Canberra.

Australian Bureau of Statistics 2008, <u>Australian Labour Market Statistics</u>, <u>April 2008</u>, cat. no. 6105.0, ABS, Canberra.

The Headline Dimensions: The Economy and Economic Resources

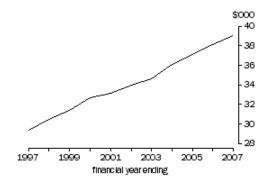


THE ECONOMY AND ECONOMIC RESOURCES

When measuring progress for the economy and economic resources, we consider five headline dimensions (although headline indicators are only available for four): national income; economic hardship; national wealth; housing (no headline indicator); and productivity. The headline indicators available suggest some progress over the past decade.

NATIONAL INCOME

National income, Real net national disposable income per person



For technical information see Endnote 1. Source: Australian System of National Accounts, 2006-07 (cat. no. 5204.0).

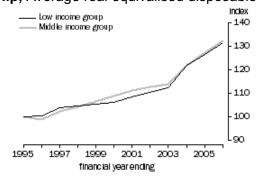
National income is a measure of Australia's capacity to acquire goods and services for consumption. It is a determinant of material living standards and is also important for other aspects of progress. There are many different ways of measuring income. The headline measure - real net national disposable income per person - has a variety of features that make it an informative indicator of national progress.

- It is a per person measure. Total income could rise during periods of population growth, even though there may have been no improvement in Australians' average incomes. This measure excludes the impact of population changes.
- It is a real measure it is adjusted to remove the effects of price change. Nominal or current price income could rise during periods of inflation, even though there may have been no increase in Australians' real capacity to buy goods and services.
- It takes account of income flows between Australia and overseas, and is adjusted for changes in the relative prices of our exports and imports (our 'terms of trade'). These international influences on Australia's income can increase or decrease Australians' capacity to buy goods and services.
- It is a net measure it takes account of the depreciation of machinery, buildings and other produced capital used in the production process. Hence, it reflects the income Australia can derive today while keeping intact the fixed capital needed to generate future income.

Australia experienced significant real income growth during the past decade. Between 1996-97 and 2006-07, real net national disposable income per person grew by 2.9% a year on average.

ECONOMIC HARDSHIP

Economic hardship, Average real equivalised disposable household income



For technical information see Endnote 2. Source: Household Income and Income Distribution, Australia, 2005-06 (cat. no. 6523.0).

Society generally accepts that people have a right to enjoy some minimum material standard of living, that is, to consume a minimum standard of goods and services. Household income is the major source of economic resources for most households and therefore a key determinant of economic wellbeing. The headline indicator shows the growth in average real equivalised disposable household income of people in the low income group (see Endnote 2). Although it provides no information about the number of people who might have an unacceptable standard of living, it does indicate how the average income of people in the low income group is changing.

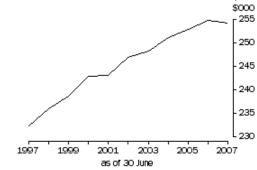
The headline indicator shows that people in the low income group experienced a trend of rising real incomes between 1994-95 and 2005-06. The average real equivalised disposable household income of the low income group is estimated to have risen by 31% over the period, although part of the increase may reflect improvements to the way income was collected in the survey from 2003-04. The same individuals were not necessarily in this income grouping for the entire period. But for those people who were, rising incomes on average would have provided a capacity to improve their standard of living.

While some would interpret this increase in the real income of the low income group as progress, others would consider that it also needs to be weighed against changes in community standards. Although there is no direct measure of these, one approach is to compare changes with those of 'middle' Australians and so changes in the real income of people in the middle income group are also shown. The average real equivalised disposable household income of the middle income group was estimated to have risen by 32% between 1994-95 and 2005-06.

The headline indicator considers low income which is commonly associated with economic hardship. However, some people have access to forms of wealth which can be used to support their standard of living (e.g. bank deposits). Furthermore, economic hardship is a multidimensional issue that is often associated with problems such as lack of participation in work, substance abuse, poor health, low levels of education, inadequate housing, crime, social exclusion and a lack of opportunity for children.

NATIONAL WEALTH

National wealth, Real national net worth per person



For technical information see Endnote 3.

Source: Australian System of National Accounts, 2006-07 (cat. no. 5204.0);

Australian Demographic Statistics (cat. no. 3101.0).

National wealth and national income are very closely related. Along with the skills of the work force, a nation's wealth has a major effect on its capacity to generate income. Produced assets (such as machinery and equipment) are used in income-generating economic activity. Income, in turn, provides for saving that enables the accumulation of new wealth. The headline indicator, 'real national net worth per person' has features that make it an informative indicator of national progress.

- It is a net measure it shows the amount by which Australia's assets exceed its liabilities to the rest of the world.
- It is a per person measure total wealth could rise if the population grew, even though there may have been no improvement in Australians' average wealth. This measure excludes the impact of population changes.
- It is a real measure it is adjusted to remove the effects of price change.

Between June 1997 and June 2007, Australia's real net worth per person rose at an average annual rate of 0.9%. However, the headline indicator does not take account of everything that might be regarded as valuable. For example, it does not include some aspects of natural capital such as native forests and other natural assets not used for economic production; human capital (e.g. knowledge and skills); or social capital (e.g. social networks and trust).

Housing provides people with shelter, security and privacy. Having an adequate and appropriate place to live is fundamental to people's wellbeing, and there are many aspects to housing that affect the quality of people's lives. Dwelling attributes, such as size, number of bedrooms, physical condition, location relative to amenities and services, and price, are all important and there is no one indicator that succinctly captures whether people's many needs and desires for suitable housing are being met.

Australians are continuing to invest significantly in the homes that they own. From June 1998 to June 2007, around \$566 billion (in real terms) was invested in dwellings (excluding land) (see <u>Endnote 4</u>). The value of land and dwellings owned by the household sector at 30 June 2007 represented 58% of the value of all assets owned by the sector.

In 2005-06, while 2.8% of households across Australia required one or more extra bedrooms to accommodate their residents, 78% had one or more bedrooms spare (see Endnote 5). But poor or inadequate housing is a problem for some groups, especially for Aboriginal and Torres Strait Islander peoples living in remote areas.

PRODUCTIVITY

Productivity, Multifactor productivity Index 105 100 95 90 85 Inancial year ending

For technical information see Endnote 6. Source: Australian System of National Accounts, 2006-07 (cat. no. 5204.0).

A nation's productivity is the volume of goods and services it produces (its output) for a given volume of inputs (such as labour and capital). A nation that achieves productivity growth produces more goods and services from its labour, capital, land, energy and other resources. Much, but not all, of Australia's output growth can be accounted for by increases in the inputs to production. The amount by which output growth exceeds input growth is the productivity improvement. Productivity growth can generate higher income and benefits might also accrue in the form of lower consumer prices.

Productivity can be measured in a variety of ways. The most comprehensive Australian measure available at present is multifactor productivity for the market sector. Multifactor productivity represents that part of the growth in output that cannot be explained by growth in labour and capital inputs. It measures dis-embodied technical change. Examples of multifactor productivity growth include improved production techniques, better management practices, and organisational change. Technological change, such as increased computing power, is embodied in the asset, and as such is captured in the capital inputs. During the decade 1996-97 to 2006-07, Australia experienced improved productivity growth, and multifactor productivity rose by 1.1% per year on average.

ENDNOTES

- 1. Reference year for real net national disposable income is 2005-06.
- 2. Disposable (after income tax) income amounts are equivalised by applying the OECD equivalence scale. The equivalised income amounts are also adjusted for changes in living costs as measured by the Consumer Price Index. No surveys were conducted in 1998-99, 2001-02 or 2004-05. The respective data for these three years shown in the graph for economic hardship are the midpoint values between the survey values of the previous year and the following year. The base of each index is at 1994-95 and equals 100.

The low income group comprises people in the 2nd and 3rd income deciles from the bottom of the distribution after being ranked, from lowest to highest, by their equivalised disposable household income. The middle income group comprises people in the middle income quintile (5th and 6th deciles) when all people are ranked, from lowest to highest, by their equivalised disposable household income.

People falling into the lowest decile are excluded from the low income group because, for many of them, the value of their income does not appear to be an appropriate indicator of the economic resources available to them. Their income tends to be significantly lower than would be available to them if they were reliant on the safety net of income support provided by social security pensions and allowances. At the same time, their expenditure levels tend to be higher than those of people in the second decile, indicating that they have access to economic resources other than income, such as wealth, to finance their expenditure.

- 3. Real national net worth is based on a volume measure with reference year of 2005-06.
- 4. See <u>Australian System of National Accounts</u>, <u>2006-07</u> (cat. no. 5204.0). Investment in dwellings is based on a volume measure with a reference year of 2005-06.
- 5. There is no single standard measure for housing utilisation. However, the Canadian National Occupancy Standard for housing appropriateness can be used as an indicator of potential overcrowding as it is relevant for Australia. It is based on a comparison of the number of bedrooms in a given dwelling and household demographics such as the number of usual residents, their relationship to one another, age and sex. Where the standard cannot be met, households are considered to be overcrowded. For more details see Housing Occupancy and Costs, Australia, 2005-06 (cat. no. 4130.0.55.001).
- 6. Reference year for multifactor productivity index is 2005-06.

REFERENCES

National income

Australian Bureau of Statistics 2007, <u>Australian System of National Accounts</u>, <u>2006-07</u>, cat. no. 5204.0, ABS, Canberra.

Economic hardship

Australian Bureau of Statistics 2007, <u>Household Income and Income Distribution, Australia, 2005-06, cat. no. 6523.0</u>, ABS, Canberra.

National wealth

Australian Bureau of Statistics 2007, <u>Australian Demographic Statistics</u>, <u>June quarter 2007</u>, cat. no. 3101.0, ABS, Canberra.

Australian Bureau of Statistics 2007, <u>Australian System of National Accounts, 2006-07</u>, cat. no. 5204.0, ABS, Canberra.

Housing

Australian Bureau of Statistics 2007, <u>Australian System of National Accounts</u>, <u>2006-07</u>, cat. no. 5204.0, ABS, Canberra.

Australian Bureau of Statistics 2007, <u>Housing Occupancy and Costs, Australia, 2005-06</u>, cat. no. 4130.0.55.001, ABS, Canberra.

Productivity

Australian Bureau of Statistics 2007, Australian System of National Accounts, 2006-07, cat. no.

The Headline Dimensions: The Environment



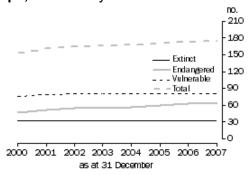
THE ENVIRONMENT

When measuring progress for the environment, three headline dimensions are presented: the natural landscape; the air and atmosphere; and oceans and estuaries. It is difficult to obtain national time series data that encapsulate the changes in Australia's natural environment. However, for those dimensions where such data are available, progress over the past decade was varied.

THE NATURAL LANDSCAPE

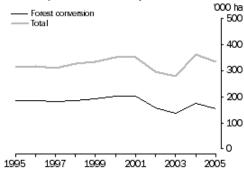
Biodiversity

The natural landscape, Biodiversity - Threatened bird and mammal species(a)



For technical information see Endnote 1.
Source: Australian Government Department of the Environment, Water, Heritage and the Arts,
Species Profile and Threats Database.

The natural landscape, Biodiversity - Annual area of land cleared



For further technical information see Endnote 2.

Estimates for 2004 and 2005 are preliminary. Data for 2006 have not been included as the area of land cleared was not reestimated for the 2006 National Greenhouse Gas Inventory. For further technical information see Endnote 2.

Source: Australian Government Department of Climate Change 2008, "2006 Activity Land Clearing"

Activity Query Table, Australian Greenhouse Emissions Information System.

No single indicator can hope to encapsulate biodiversity, so we focus on two aspects: the numbers of extinct and threatened Australian birds and mammals; and the clearing of native vegetation.

Although the number of birds and mammals is only a small part of overall biological diversity, a decline in these groups of species threatens ecological processes and can point to a wider decline in

biodiversity. The list of threatened species is not definitive since species can be added to or removed from the list as their status changes or due to improved knowledge (see Endnote 1).

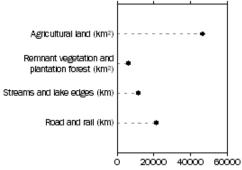
Between 2000 and 2007, the number of terrestrial bird and mammal species assessed as extinct, endangered or vulnerable rose by 14% from 153 to 174 (of which 69 were birds and 105 were mammals). At 31 December 2007, just under half (46%) of these species were vulnerable, just over one-third (36%) were more seriously threatened (endangered) and the remainder (18%) were presumed extinct. There were increases in the number of both endangered and vulnerable species. The rise in species assessed as endangered was higher (an increase of 34%) than those assessed as vulnerable (an increase of 7%).

Land clearing is a key threat to biodiversity. It destroys and degrades the habitat on which native species rely. Clearing also allows weeds and invasive animals to spread, contributes to greenhouse gas emissions and can lead to soil degradation, such as erosion and salinity, which in turn can affect water quality. The land clearing estimates presented in MAP include information about forest conversion (land cleared for the first time) and total land cleared (forest conversion plus reclearing) (see Endnote 2).

The estimated 333,600 ha of Australian land cleared in 2005 is 6% more than the 314,700 ha cleared in 1995. Of the land cleared in 2005, almost half (152,400 ha) was 'forest conversion' (forest cleared for the first time). This was 18% less than the area converted in 1995 (186,900 ha). The annual area of land cleared declined after 2001 but increased again in 2004 (see Endnote 2).

Land

The natural landscape, Land - Assets at risk from dryland salinity - 2000



For technical information see Endnote 3.
Source: National Land and Water Resources Audit 2001,
Australian Dryland Salinity Assessment 2000.

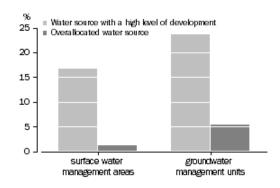
Australia's soils are old and shallow and are susceptible to degradation by agricultural activities. Dryland salinity for example, occurs when trees or other deep-rooted vegetation are replaced with vegetation that use less water. This causes the water table to rise bringing natural salts to the surface. These salts, in sufficient quantity, are toxic to most plants and thus can reduce agricultural productivity. Dryland salinity threatens biodiversity, through loss of habitat on land and in water, and also impacts on water resources. The salt contained in rising groundwater levels can damage bitumen and concrete and so affect roads, footpaths, housing, pipelines and other assets. Areas near water are often worst affected because they occupy the lowest parts of the landscape where saline groundwater first reaches the surface.

In 2000, about 46,500 km² (4.65 million hectares) of agricultural land had a high salinity hazard or were at high risk from shallow watertables. About 11,800 km of streams and lake edges, as well as 1,600 km of rail and 19,900 km of roads were at risk.

The effects of dryland salinity are still considered an important measure of environmental progress. However, the salinity data presented above for this headline indicator have not been updated since the first release of MAP in 2002, as there is no more recent data available.

Inland waters

The natural landscape, Inland waters - Water resources level of development - 2004-05



For technical information see Endnote 4.
Source: National Water Commission, Australian Water Resources 2005.

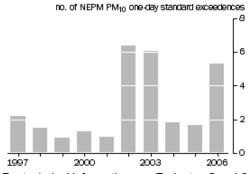
Apart from drinking water, much of our economy (agriculture in particular) relies on water. The condition of freshwater ecosystems has a critical impact on the wider environment. Water is fundamental to the survival of people and other organisms.

In the year ending June 2005, 1% of the 256 Australian surface water management areas that were assessed were overallocated. A further 17% of these areas were developed to a high level. About 5% of the 356 groundwater management units that were assessed were overallocated and another 24% had a high level of development (see Endnote 4).

THE AIR AND ATMOSPHERE

Urban air quality

The air and atmosphere, Days fine particle health standards were exceeded



For technical information see Endnotes 5 and 6. Source: State environmental protection agencies, 2007 and 2008; Regional Population Growth, Australia (cat. no. 3218.0).

Poor air quality has a range of negative impacts: it can cause health problems, damage infrastructure, reduce crop yields and harm flora and fauna. Air pollution occurs both naturally and as a result of human activities. Australians consistently rank air pollution as a major environmental concern. The concentration of fine particles in the atmosphere is the form of air pollution about which many health experts in Australia are most concerned. The headline indicator summarises data from continuous air monitoring stations in Sydney, Melbourne, Adelaide, Perth and Brisbane to report on the number of days when the National Environment Protection Measure (NEPM) for fine particle (PM10) concentrations in the air was exceeded (see Endnotes 5 and 6).

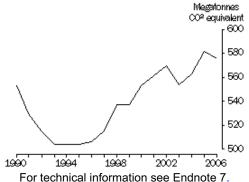
In general, the common air pollutants are found at higher levels in urban and industrial areas than in rural Australia. It is important to note that daily changes in air quality depend on ambient conditions, like wind direction and the monitoring station's proximity to pollution sources. Further, high concentrations of fine particles from irregular events, such as bushfires, can obscure the longer trend in levels produced by regular sources like car emissions.

Overall, air quality in Australia is relatively good. Fine particle health standards (see Endnote 5) were exceeded in the selected urban areas on average between one and two days each year between 1997 and 2006 with the exception of 2002, 2003 and 2006. In 2002 and 2003, standards were exceeded more often, mainly because of severe bushfires and dust storms around the Sydney and Melbourne

areas, which caused the NEPM to be exceeded on 13 days in Sydney (Liverpool) in 2002 and 10 days in Melbourne (Footscray) in 2003. The NEPM was also exceeded on eight days in Brisbane (Rocklea) in 2002. In 2006 the standards were exceeded on 11 days in Adelaide (Netley), mostly due to smoke haze from bushfires and strong winds and windblown dust. The standards were also exceeded on 11 days in Melbourne in 2006, with fire the likely cause for 10 of those days.

Net greenhouse gas emissions

The air and atmosphere, Australia's net greenhouse gas emissions



Note: This graph was updated with data from the 2006 National Greenhouse Gas Inventory.

Source: Australian Greenhouse Office 2008, National Greenhouse Gas Inventory 2006.

Climate change is widely perceived as one of the most significant international environmental concerns. The main gases in the atmosphere, nitrogen and oxygen, are almost completely transparent to the sun's rays. But water vapour, carbon dioxide and other gases form a blanket around the Earth, trapping heat - a process called the greenhouse effect. Human activity is increasing atmospheric concentrations of existing greenhouse gases (such as carbon dioxide and methane) and adding new gases such as chlorofluorocarbons (CFCs).

Net emissions of greenhouse gases are estimated using information about total emissions, less any credits from forest sinks. These credits are estimates of how much carbon dioxide has been absorbed by new and expanding forests established in Australia since 1990.

For 2006, Australia's net greenhouse gas emissions were estimated to be 576.0 megatonnes of carbon dioxide-equivalent (CO_2 -e) (see Endnote 7). Australia's net emissions in 2006 were 1% lower than in 2005, and 4.2% above 1990 levels (the year 1990 is the base period for the reporting of emissions under the Kyoto protocol). Emissions tended to rise gradually over the period from 1995. The sharpest rise was between 1997 and 1998 when emissions from land use change rose rather than fell, with another steep rise between 2004 and 2005. The energy sector is the largest source of greenhouse gas emissions. Emissions from this sector rose steadily from 1990 to 2006. (Note: Data in this paragraph were updated with data from the 2006 National Greenhouse Gas Inventory.)

OCEANS AND ESTUARIES

Australia's coastal and marine regions support a large range of species, many of them found only in Australian waters. These regions are also important to Australian society and the economy. Although this dimension has no headline indicator, it does have important aspects which different organisations have attempted to measure.

One such aspect is the sustainability of fish stocks. Australia's major fisheries target prized species such as lobsters, prawns, abalone and tuna, which despite modest production tonnage in world terms, are subject to high fishing pressure. Overfishing occurs when the fishing pressure is too heavy to allow the fish population to replenish itself, or when too many small fish are taken, and therefore too few grow to a size that provides the largest yield from that fishery. Overfished species are those for which the current stock is below a reference point set by scientists and managers.

In 2006, for fish stocks managed by the Australian Government, 19 of the 97 principal species that are classified were overfished and/or subject to overfishing. This compares with 3 species (of 48 species classified) in 1996 (see Endnote 8).

Measuring the condition of estuaries not only reports on the state of our oceans, it also sheds light on how land use in the estuary's catchment is affecting the sea. The Estuarine Condition Index, developed by the National Land and Water Resources Audit (NLWRA), provides a snapshot of estuary health. The more modified an estuary, the greater the pressures on it. There is no recent data for this measure but in 2002 the NLWRA assessed the condition of about 1,000 estuaries and found that 50% were near-pristine, 22% were largely unmodified, 19% had been modified and 9% had been extensively modified.

ENDNOTES

- 1. Data have been compiled from schedules to the Environment Protection and Biodiversity Conservation Act 1999. Under this Act, there are six different categories of threatened species:
 - Extinct there is no reasonable doubt that the last member of the species has died.
 - Extinct in the wild the species is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range.
 - Critically endangered the species is facing an extremely high risk of extinction in the wild in the immediate future.
 - **Endangered** the species is not critically endangered but it is facing a very high risk of extinction in the wild in the near future.
 - **Vulnerable** the species is not critically endangered or endangered but it is facing a high risk of extinction in the wild in the medium-term future.
 - Conservation dependent the species is the focus of a specific conservation program without which the species would become vulnerable, endangered or critically endangered within a period of five years.

For more information, see the <u>Australian Government Department of the Environment, Water, Heritage</u> <u>and the Arts</u> website.

In the graph shown, extinct includes extinct and extinct in the wild, and endangered includes critically endangered and endangered. Conservation dependent species are not included in the graph. Migratory species such as seabirds, marine mammals and animals living on islands far offshore are excluded. Subspecies are included.

Extinctions data have been backcast to take account of rediscoveries. There is likely to be a time lag between a species being identified as threatened and being listed. Changes in listings can be the result of taxonomic revisions and improved information from field investigations.

In previous editions of MAP, the data for this indicator have been compiled from schedules to the Endangered Species Protection Act 1992 as well as schedules to the Environment Protection and Biodiversity Conservation Act 1999. As the two Acts are not strictly comparable, only the latter Act has been used to compile data for this edition of MAP.

2. Forest conversion is land that has been cleared for the first time and total land cleared includes forest conversion plus reclearing (clearing of land which has previously been cleared). Reclearing only refers to land areas where a conversion was previously identified. Areas in scope of this indicator are those cleared as a result of deliberate human activities. The figures do not distinguish between the type of vegetation (whether native or non-native) that was cleared.

Data for 2006 have not been included as the area of land cleared was not re-estimated for the 2006 National Greenhouse Gas Inventory. Estimates for 2004 and 2005 should be considered as interim only and will be revised when areas of forest conversion are confirmed in the next update of the National Carbon Accounting System. Data for 1995 to 2004 have been revised since the release of Measuring Australia's Progress 2008 (Edition 1). For further information, see the National Inventory Report 2006 Vol 2 Part A on the Department of Climate Change website.

3. The National Land and Water Resources Audit 2001 (NLWRA) defines land as being at high risk of dryland salinity if groundwater levels are within two metres of the surface or within two to five metres with well demonstrated rising watertables. Remnant vegetation includes planted perennial vegetation.

4. Australia has 340 surface water management areas and 367 groundwater management units (hydraulically connected groundwater systems). However some of these areas and units were not assessed or did not have data available in 2004-05 and these have been excluded from the calculations.

A water source with a high level of development is one where the sum of water access entitlements is between 70% and 100% of sustainable yield. An overallocated water source is one where the sum of water access entitlements is more than 100% of sustainable yield. In this context, 'sustainable yield' is the 'level of water extraction from a particular system that, if exceeded, would compromise key environmental assets, or ecosystem functions and the productive base of the resource'. There is no standardised method across Australia for the determination of the sustainable yield.

- 5. Fine particles in the atmosphere come from a wide variety of sources, including soil (dust), vegetation (pollens and fungi), sea salt, fossil fuel combustion, biomass burning (including bushfires) and industry. Particles suspended in air have the ability to penetrate the lower airways of the lung if smaller than 10 micrometres in diameter (referred to as PM10). Increasing evidence suggests the acute health effects may, in fact, be the result of exposure to very fine particles, such as those smaller than 2.5 micrometres in diameter (referred to as PM2.5). It is these finer particles that are the main cause of urban haze, which typically appears white. Most of these particles are generated by people, rather than occurring naturally. The human health effects are many and depend on the size and chemical composition of the particles. Particles can aggravate existing respiratory and cardiovascular disease and asthma, can affect eyesight and cause allergies.
- 6. Data are from representative sites in Sydney (Liverpool), Melbourne (Footscray), Brisbane (Rocklea), Perth (Duncraig) and Adelaide (Thebarton from 1997 to 2002 and Netley for 2003 to 2006), and have been averaged in proportion to each city's population. The data are the number of days when the National Environment Protection Measures (NEPM) average daily PM10 (see Endnote 5) standard is exceeded. The NEPM standard is a maximum concentration of 50 micrograms per cubic metre with a maximum allowable exceedence of five days per year. The PM10 data from each state environmental protection agency (EPA) was obtained using the Tapered Element Oscillation Microbalance method, which continuously monitors PM10 levels in the air averaged over a 24 hour period. 1997 was the first year all of the five EPAs used this method. Compliance with the standards can only be demonstrated if data capture is at least 75% in each quarter of the year. Data capture did not meet the target for Footscray in 2006 as this performance monitoring station did not operate continuously during the year. It was taken off-line for upgrading.
- 7. The indicator measures million tonnes (megatonnes) of carbon dioxide (CO₂) equivalent emissions. Different greenhouse gases have different effects and remain in the atmosphere for different periods of time. A tonne of methane, for example, contributes as much to global warming as 21 tonnes of CO₂. To assess the impact of the different gases together, emissions of each gas are converted to a common CO₂ equivalent scale and added. For example, a tonne of methane and a tonne of CO₂ would equate to 22 tonnes of greenhouse gases CO₂ equivalent.

Estimates for forest conversion, a component of overall greenhouse gas emissions, should be considered as interim only for 2004 and 2005, and will be revised when areas of forest conversion are confirmed in the next update of the National Greenhouse Gas Inventory 2007. In particular, the forest conversion component was not re-estimated for 2006 and, as an interim measure only, was assumed to be unchanged from the 2005 estimate. For further information, see the National Inventory Report 2006 Vol 2 Part A on the Department of Climate Change website.

The data are based on estimates produced using Kyoto accounting methods.

8. Larcombe, J. and McLoughlin, K. (eds) 2007, <u>Fishery Status Reports 2006: Status of Fish Stocks Managed by the Australian Government</u>, Bureau of Rural Sciences, Canberra.

REFERENCES

Australian Government Department of Climate Change 2008, "2006 Activity Land Clearing" <u>Activity Query Table</u>, Australian Greenhouse Emissions Information System.

Australian Government Department of Climate Change 2008, <u>National Greenhouse Gas Inventory</u> 2006, Australian Greenhouse Office, Canberra, viewed 29 August 2008.

Australian Greenhouse Office 2007, National Inventory Report 2005 Vol 2 Part A, Australian Greenhouse Office, Canberra, viewed 22 June 2007.

Australian Government Department of the Environment, Water, Heritage and the Arts 2008, Environment Protection and Biodiversity Conservation Act List of Threatened Fauna, viewed 10 January 2008.

Australian Government Department of the Environment, Water, Heritage and the Arts 2008, <u>Species and ecological communities removed from the Environment Protection and Biodiversity Conservation</u> Act threatened list, viewed 10 January 2008.

National Land and Water Resources Audit 2001, <u>Australian Dryland Salinity Assessment 2000</u>, National Land and Water Resources Audit Canberra.

National Water Commission 2007, <u>Australian Water Resources 2005: Level of groundwater</u> entitlements relative to sustainable yield, viewed 8 January 2008.

National Water Commission 2007, <u>Australian Water Resources 2005: Level of surface water</u> entitlements relative to sustainable yield, viewed 8 January 2008.

The air and atmosphere

Australian Bureau of Statistics 2007, <u>Regional Population Growth, Australia, 2005-06</u>, cat. no. 3218.0, ABS, Canberra.

Australian Government Department of Climate Change 2008, <u>National Greenhouse Gas Inventory</u> 2006, Australian Greenhouse Office, Canberra, viewed 1 August 2008.

Australian Greenhouse Office 2007, <u>National Inventory Report 2005 Vol 2 Part A</u>, Australian Greenhouse Office, Canberra, viewed 22 June 2007.

Department of Environment and Conservation (NSW) 2007, <u>Quarterly Air Quality Monitoring Report</u>, various issues, Department of Environment and Conservation (NSW), Sydney, viewed 14 January 2008.

Department of Environment and Conservation (WA) 2006, <u>Air Quality Tools</u>, <u>Systems and Data</u>, Department of Environment and Conservation (WA), Perth, viewed 15 January 2008.

Environmental Protection Agency South Australia 2007, <u>South Australia's Air Quality 2006</u>, Environmental Protection Agency South Australia, Adelaide, viewed 14 January 2008.

Environmental Protection Agency Victoria 2007, <u>Air Monitoring Report 2006: Compliance with the National Environment Protection (ambient air quality) measure</u>, Environmental Protection Agency Victoria, Melbourne, viewed 14 January 2008.

Queensland Government Environmental Protection Agency 2007, <u>Queensland 2006 Air Monitoring Report</u>, Queensland Government Environmental Protection Agency, Brisbane, viewed 14 January 2008.

Oceans and estuaries

Larcombe, J. and McLoughlin, K. (eds) 2007, <u>Fishery Status Reports 2006: Status of Fish Stocks Managed by the Australian Government</u>, Bureau of Rural Sciences, Canberra.

The Headline Dimensions: Living Together

LIVING TOGETHER

When measuring progress for living together in our society we consider three headline dimensions: family, community and social cohesion; crime; and democracy, governance and citizenship. However, headline indicators are only available for the second dimension.

FAMILY, COMMUNITY AND SOCIAL COHESION

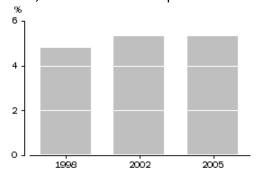
Family and community are important aspects of society, but the way in which they contribute to progress is difficult to define and measure, and so there is no single indicator that captures all that might be important. The effective functioning of families and communities depends on a wide range of factors. For example, the quality and strength of people's relationships and bonds with others - their family, friends and the wider community - are important elements which contribute to social cohesion. A more cohesive society is one in which communities are strong and inclusive, in which inequalities are reduced and people have a sense of belonging. When the support offered by people's families and communities declines or is absent, it can contribute to a range of social problems such as poverty, illiteracy, ill-health and social exclusion.

Children living in a household without a co-resident employed parent may be at greater risk of experiencing financial hardship, and lack of employment within the family may also impact on children's long-term personal development. It is important to note however that children living without a co-resident employed parent do not always experience adverse outcomes (see <u>Endnote 1</u>). Since the mid-1990s, the proportion of children aged under 15 years living without an employed parent in the same household has varied between 15% to 19%, and has been 16% or less since 2002-03. In 2005-06, 607,000 children lived without an employed co-resident parent and around 69% of these lived in one parent families (see Endnote 2).

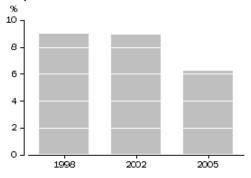
The vast range of services provided within communities by groups, clubs and charitable organisations are a crucial adjunct to the care provided by families and the more formal types of support provided by governments. Community bonds can be strengthened through volunteering and donating money to groups and organisations in the community. Giving time to do some work for an organisation or group might be regarded as one of the stronger expressions of social capital, as it involves giving help and provides opportunities for community engagement. Between 2000 and 2006, the proportion of people aged 18 years and over who reported that they did some voluntary work during the previous 12 months increased from 32% to 34% (35% on a basis comparable to 2000) (see Endnote 3). While the volunteer rate increased, the amount of time volunteers gave decreased. The median annual hours contributed by volunteers fell from 72 hours per person in 2000 to 56 hours per person in 2006.

CRIME

Crime, Victims of selected personal crimes



Crime, Victims of selected household crimes



For technical information see Endnote 5. Source: Crime and Safety, Australia, 2005 (cat. no. 4509.0).

Crime takes many forms and can have a major impact on the wellbeing of victims, their families and friends, and the wider community. Those most directly affected may suffer financially, physically, psychologically and emotionally, while the fear of crime can affect people and restrict their lives in many ways. There are other costs as well, including the provision of law enforcement services by the police, courts and associated legal services, and corrective services.

Although it would be desirable to have a single indicator of the cost of crime to society, one does not exist. Instead the headline indicators are two measures of victims of common criminal offences: 'selected personal crimes' and 'selected household crimes'. The former refers to assault, sexual assault or robbery. The latter refers to actual or attempted break-in and motor vehicle theft. Personal crimes are not restricted to crimes committed in the victim's home, and so include crimes at people's place of work or study and so on. The victimisation rates for selected personal crimes are for assault and robbery victims among people aged 15 or over, and sexual assault among people aged 18 and over (see Endnote 4). The victimisation rates for selected household crimes are for actual or attempted break-ins and motor vehicle thefts across all households.

Though small, the victimisation prevalence rates for selected personal crimes showed an increase between 1998 and 2005 from 4.8% to 5.3%, the same level as in 2002. Most of these people were assaulted. Between 1998 and 2005, the proportion of households that were victims of selected household crimes fell from 9.0% to 6.2%.

DEMOCRACY, GOVERNANCE AND CITIZENSHIP

National life is influenced by both the wellbeing of individual citizens in terms of tangible factors such as income, wealth, health and education and by less tangible factors such as the quality of our public life, the fairness of our society, the health of democracy and the extent to which citizens of Australia participate actively in their communities or cooperate with one another. While these areas are important to the functioning of society, it is difficult to measure these aspects, and there is no single indicator that summarises this dimension of progress.

It has been argued that a healthy democracy needs citizens who care, are willing to take part, and are capable of helping to shape the shared values and aspirations of a society. Participation - whether through the institutions of civil society, political parties, or the act of voting - is therefore seen as important to a stable democracy. In Australia, enrolment and voting in state/territory and Federal elections is compulsory. At 30 June 2007, 93% of eligible Australians were enrolled to vote, the same proportion as three years earlier (at the time of the Federal election in 2004). There are differences in the proportions enrolled among different age groups. The most notable difference was for younger people, with 80% of eligible 18-25 year olds enrolled at 30 June 2007 (see Endnote 6).

Another principle underpinning a healthy democracy is that parliament should represent and express the will of the people. The representation of women in parliament is an indicator of women's political participation and the support for female candidates from political parties. The proportion of women in the Parliament of Australia has risen over the past 20 years. On 1 January 1988, around one in twenty (6%) members of the House of Representatives were women, as were around 1 in 5 (22%) senators. By the beginning of 2008, the representation of women had risen to just over one in four (27%) in the House of Representatives and just over one in three (36%) in the Senate (see Endnote 7).

ENDNOTES

- 1. See for example: Dawkins, P, Gregg, P, & Scutella, R 2001, <u>The Growth of Jobless Households in Australia</u>, Melbourne Institute of Applied Economic and Social Research, University of Melbourne, Melbourne, viewed 4 March 2007; and Gregory, R 1999, <u>Children and the Changing Labour Market: Joblessness in Families with Dependent Children, Discussion Paper No. 406</u>, Centre for Economic Policy Research, Australian National University, Canberra, viewed 5 March 2007.
- 2. Australian Bureau of Statistics 2007, ABS data available on request, Survey of Income and Housing 2005-06, ABS, Canberra.
- 3. The volunteering rate of 35% for 2006 has been presented on a basis comparable to data collected in 2000 and therefore differs slightly from the volunteering rate of 34% which is published in <u>Voluntary Work, Australia, 2006</u> (cat. no. 4441.0). For more detailed information, see comparison table A2 and the discussion in the appendix in <u>Voluntary Work, Australia, 2006</u> (cat. no. 4441.0). Note also that these estimates are from the 2006 General Social Survey. This survey was designed to provide a detailed account of volunteers and their volunteering activities. As such its results will be different (and more accurate) than those available from other sources including the 2006 Census of Population and Housing. The census data will be useful, however, for comparing the characteristics of volunteers at the small area level.
- 4. The victimisation rates for personal crimes are for assault and robbery victims among people aged 15 and over, and sexual assault among people aged 18 and over. Completion of the sexual assault questions for the ABS Crime and Safety Survey was voluntary, and some respondents chose not to complete them. For these respondents selected data items were imputed following a standard set of rules based on the assumption that the victimisation rates were equal for respondents and non-respondents alike within age groups and sex categories.
- 5. The victimisation rates for household crimes are for actual or attempted break-ins and motor vehicle thefts across all households (private dwellings).
- 6. These estimates were derived using Australian Bureau of Statistics population data and are sourced from Australian Electoral Commission (AEC) 2007, <u>AEC Annual Report 2006-07</u>, viewed 21 January 2008.
- 7. Information on women in parliament can be found on the following pages of the Parliament of Australia website:
 - Number of women in Parliament
 - List of women senators
 - House of Representatives list of members by gender.

REFERENCES

Family, community and social cohesion

Australian Bureau of Statistics 2007, Voluntary Work, Australia, 2006, cat. no. 4441.0, ABS, Canberra.

Australian Bureau of Statistics 2007, ABS data available on request, Survey of Income and Housing 2005-06, ABS, Canberra.

Dawkins, P, Gregg, P, & Scutella, R 2001, <u>The Growth of Jobless Households in Australia</u>, Melbourne Institute of Applied Economic and Social Research, University of Melbourne, Melbourne, viewed 4 March 2007.

Gregory, R 1999, <u>Children and the Changing Labour Market: Joblessness in Families with Dependent Children, Discussion Paper No. 406</u>, Centre for Economic Policy Research, Australian National University, Canberra, viewed 5 March 2007.

Crime

Australian Bureau of Statistics 2006, <u>Crime and Safety, Australia, 2005</u>, cat. no. 4509.0, ABS, Canberra.

Democracy, governance and citizenship

Australian Electoral Commission 2007, AEC Annual Report 2006-07, viewed 21 January 2008.

Parliament of Australia 2007a, <u>House of Representatives: list of members by gender</u>, viewed 21 January 2008.

Parliament of Australia 2007b, Number of women in Parliament, viewed 21 January 2008.

Parliament of Australia 2007c, Women Senators, viewed 21 January 2008.

About this Release

Measures of Australia's Progress: Summary Indicators 2008 provides a national summary of the most important areas of progress (including: Individuals, The economy and economic resources, The environment, and Living together) and presents them in a way which can be quickly understood. The purpose of Measures of Australia's Progress (MAP) is to inform and stimulate public debate and encourage all Australians to assess the bigger picture when contemplating progress.

This release focuses on 14 headline dimensions of progress and their headline indicators. Only the headline indicators have been graphed. However, while some dimensions have more than one headline indicator and others have none, relevant indicators, which measure one or more important aspects of progress, are still included for all dimensions.

See also 1383.0.55.002

Explanatory Notes

Abbreviations

ABBREVIATIONS

The following symbols and abbreviations are used in this product:

'000 thousand

ABS Australian Bureau of Statistics
AEC Australian Electoral Commission

CO₂ carbon dioxide

EPA Environmental Protection Agency

ha hectare km kilometre

km² square kilometre

MAP Measures of Australia's Progress

NEPM National Environment Protection Measure

OECD Organisation for Economic Co-operation and Development PM₁₀ particulate matter less than 10 micrometres in diameter

Development Of Measures Of Australia's Progress (Appendix) (Appendix)

WHY THE ABS DEVELOPED MEASURES OF AUSTRALIA'S PROGRESS

Recent years have seen continued public interest in assessing whether life in Australia, and other countries, is getting better, and in the interrelationships between economic, social and environmental aspects of life. Although most regard Gross Domestic Product (GDP) as an important measure of economic progress, there are many who believe that it should be assessed in conjunction with other, non-economic, measures of progress.

Through its publications, electronic releases of data and other means, the ABS provides an array of statistics relevant to assessing all aspects of progress. However, the size of the information base means that it is not so accessible to many people. The ABS developed the suite of Measures of Australia's Progress (MAP) products with the aim of providing a concise set of statistical evidence to help people assess whether life in Australia is getting better.

PROCESS OF DEVELOPING HEADLINE INDICATORS

When MAP was first developed, the ABS undertook an extensive process to determine what measures of progress to include. Broadly, the indicators presented in MAP were chosen in four key steps:

- We defined three broad domains of progress (society, economy and environment)
- We made a list of potential progress dimensions within each of the domains
- We chose a subset of dimensions for which indicators would be sought
- We chose an indicator (or indicators) for each of those dimensions. In particular, potential 'headline' indicators were identified which have the capacity to encapsulate major features of change in the given aspect of Australian life.

The eventual selection of indicators in MAP was guided by expert advice and by the criteria listed below. The decision on how many indicators to present was based on statistical grounds – for example, is it possible to find one or a few indicators that would encapsulate the changes in the given aspect of life? Is it possible to sum or otherwise combine indicators? And is the indicator supported by quality data?

Once the ABS had drafted its initial list of candidate headline indicators, extensive consultation was undertaken to test whether the list accorded with users' views. Whether a reader agrees with the ABS choice of headline indicators or not, he or she is able to look at the whole suite of indicators in each full edition of MAP and assign a weight to each, according to his or her own values, to make an assessment of whether life is getting better.

It was also decided that the indicators should focus on the outcome rather than the inputs or underlying causes of change (such as other influences that generated the outcome, or government and other social responses to the outcome). For example, an outcome indicator in the health dimension should if possible reflect people's actual health status and not, say, public and private expenditure on health treatment and education. Input and response variables are important to understanding why health outcomes change, but the outcome itself should be examined when assessing progress.

One criterion was regarded as essential to headline indicators – that most Australians would agree that each headline indicator had a 'good' direction of movement (signalling progress, when that indicator is viewed alone) and a 'bad' direction of movement (signalling regress, when that indicator is viewed alone). For instance, the number of divorces could be considered as an indicator for family life. But an increase in that number is ambiguous – it might reflect, say, a greater prevalence of unhappy marriages, or greater acceptance of dissolving unhappy marriages. This good-direction / bad-direction distinction raises unavoidably the guestion of values and preferences.

Applying this criterion depends crucially on interpreting movements in one indicator, assuming that the other indicators of progress are unchanged. For example, some would argue that economic growth has, at times, brought environmental problems in its wake, or even that the problems were so severe that the growth was undesirable. Others would argue that strong environmental protection might be retrograde to overall progress because it hampers economic growth. However, few would argue against economic growth or strong environmental protection if every other measure of progress was unaffected: that is, if economic growth could be achieved without environmental harm, or if environmental protection could be achieved without impeding economic growth. Of course, although keeping other things equal might be possible in theory, it seldom, if ever, occurs. The links between indicators are important, and the article: Relationships between domains of progress in this issue discusses some of these links.

Criteria for choosing headline indicators

In the view of the ABS, ideally a good headline indicator should:

- be relevant to the particular dimension of progress
- where possible, focus on outcomes for the dimension of progress (rather than on the inputs or processes used to produce outcomes)
- show a 'good' direction of movement (signalling progress) and 'bad' direction (signalling regress)
 at least when the indicator is considered alone, with all other dimensions of progress kept equal
- be supported by timely data of good quality
- be available as a time series
- be available at a national level
- be sensitive to changes in the underlying phenomena captured by the dimension of progress
- be summary in nature
- preferably be capable of disaggregation by, say, geography or population group
- be intelligible and easily interpreted by the general reader.

For some dimensions of progress, it is not yet possible to compile an ideal indicator meeting all these criteria. In these cases an example of a relevant indicator, which sheds light on one aspect of the dimension of progress, has been presented.

Other Initiatives (Appendix) (Appendix)

APPENDIX 2 OTHER INITIATIVES

There are a number of initiatives relating to measuring progress and wellbeing at the international, national and sub-national levels. A selection of some of the more recent work is mentioned below.

- The OECD World Forum on 'Statistics, Knowledge and Policy' was held in Istanbul in June 2007. The Forum provided an opportunity for discussion on the measurement of progress for societies. This project is continuing, working towards a third world forum in Korea in 2009.
- The 'Beyond GDP' international conference was held in Brussels in November 2007. The conference aimed to clarify the indices that are most appropriate to measure progress, and how these can best be integrated into the decision-making process.
- The Working Group on Statistics for Sustainable Development is finalising a report on statistics

for sustainable development for presentation to the Conference of European Statisticians in June 2008. The report aims to articulate a broad conceptual framework for the measurement of sustainable development and identify a set of core indicators that may allow international comparisons.

- A number of Australian state and territory governments have developed strategic plans that articulate priorities and goals for building a better society. In addition, community indicators are produced in some states to report on the wellbeing of communities. The following describes a selection of this work:
 - A New Direction for New South Wales, the NSW State Plan, released in 2006, sets
 out five areas of activity for the New South Wales Government including Rights,
 respect and responsibility, Delivering better services, Fairness and opportunity,
 Growing prosperity across NSW, and Environment for living.
 - <u>Growing Victoria Together</u> is a 10 year strategic plan beginning in 2001 and ending in 2010. It contains goals which balance social, economic and environmental considerations.
 - <u>Community Indicators Victoria</u> has been developed to present and report on the wellbeing of Victorians, using a set of community wellbeing indicators. Reports at the Local Government Area level, containing data from the 2007 Community Indicators Victoria Survey and other sources, are available for free from the website.
 - <u>South Australia's Strategic Plan</u>, updated in 2007, focuses on six themes including Growing prosperity, Improving wellbeing, Attaining sustainability, Fostering creativity and innovation, Building communities and Expanding opportunity.
 - <u>Tasmania Together</u> is a 20-year strategic plan (from 2001 to 2020) which contains 12 goals for Tasmania's long-term social, economic and environmental future.
 - The <u>Canberra Social Plan</u> sets out seven priorities to guide policy-makers over a 10 to 15 year period (from 2004).
- The <u>Australian Collaboration</u> (a group of major peak bodies for national non-government organisations) in 2006 produced the report: <u>Which Direction? A review of monitoring and reporting in Australia</u>.
- The UK Government launched a Sustainable Development Strategy in March 2005, called "Securing the Future", which sets out the vision of sustainable development through to 2020. In 2007, data on the indicators were updated in Sustainable development indicators in your pocket 2007.
- Ireland's <u>Central Statistics Office</u> produced the 2006 edition of <u>Measuring Ireland's Progress</u> in April 2007. The publication provides an analysis of the economic, social and environmental situation in Ireland.
- Other useful references are provided on the website of the <u>International Institute of Sustainable</u> <u>Development</u>.

© Commonwealth of Australia

All data and other material produced by the Australian Bureau of Statistics (ABS) constitutes Commonwealth copyright administered by the ABS. The ABS reserves the right to set out the terms and conditions for the use of such material. Unless otherwise noted, all material on this website – except the ABS logo, the Commonwealth Coat of Arms, and any material protected by a trade mark – is licensed under a Creative Commons Attribution 2.5 Australia licence